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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,453	01/23/2004	Antonio Criminisi	304561.02	3630

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MICROSOFT CORPORATION  
ONE MICROSOFT WAY  
REDMOND, WA 98052-6399

EXAMINER
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LIEW, ALEX KOK SOON

ART UNIT	PAPER NUMBER
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2624

NOTIFICATION DATE	DELIVERY MODE
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12/29/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

roks@microsoft.com  
ntovar@microsoft.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/763,453	<b>Applicant(s)</b> CRIMINISI ET AL.	
	<b>Examiner</b> ALEX LIEW	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14,16-26 and 28-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13,14,16-26,28-36,41 and 42 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-12 and 37-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. The amendment filed on 4/18/08 is entered and made of record.
2. Response to Applicant's Arguments

On page 16 of the reply the applicant stated:

"With respect to Claim 37, Chen discloses a computer image processing method that produces a foreground mask for 2D/3D image editing. However, it is respectfully submitted that Chen does not disclose or suggest a virtual camera being translated with respect to a stereo camera pair to a position determined by a location of a display area of a display device, the location being centered off-center from the center of the display device."

The examiner agrees; in an updated search the examiner found Yoshigahara (US pat no 7,015,951); Yoshigahara disclose a virtual image from a first image and a second image of a stereo camera pair (figure 11, 'virtual picture'), the virtual image being projected from an optical center of a virtual camera (figure 11, 3c is the virtual camera), the virtual camera being translated with respect to the stereo camera pair (if cameras 3a and 3b are moved the virtual image will move with the stereo cameras).

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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Claims 1, 2, 4-12, 37 and 40 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions<sup>2</sup> indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. Claims 1, 2, 4-12, 37 and 40 are methods which are not tied-to any processor or computing device.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa (US pat no 6,549,650) in view of Yoshigahara (US pat no 7,015,951).

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<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

<sup>2</sup> *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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With regards to claim 38, Ishikawa discloses displaying a display window on a display device, the display window being displayed off-center of the display device (see figure 52, shows two display windows that is not exactly at the center); and generating a first and second image of a stereo camera pair (figure 51, 7401a and 7401b), but does not disclose a virtual image from a first image and a second image of a stereo camera pair, the virtual image being projected from an optical center of a virtual camera, the virtual camera being translated with respect to the stereo camera pair to a position determined by a location of the display window.

Yoshigahara disclose a virtual image from a first image and a second image of a stereo camera pair (figure 11, 'virtual picture'), the virtual image being projected from an optical center of a virtual camera (figure 11, 3c is the virtual camera), the virtual camera being translated with respect to the stereo camera pair (if cameras 3a and 3b are moved the virtual image will move with the stereo cameras).

The combination of Ishikawa and Yoshigahara disclose to a position determined by a location of the display window (if the stereo pair camera of Ishikawa is modified with Yoshigahara's, by adding a feature to generate virtual image, then the center of the display, figure 12A, 73, of Ishikawa will be the location of the virtual camera). The position of the virtual image/camera will be determined where the display, figure 12A, 73, of Ishikawa, is facing. One skilled in the art would include step of generating a virtual camera because to limit to only two cameras to save power cost and cost to buy / install another camera.

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With regards to claim 37 see the rationale for claim 38.

3. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa ('650) in view of Yoshigahara ('951) and official notice.

With regards to claim 39, see the rationale for claim 38. In addition, Ishikawa and Yoshigahara do not disclose video teleconferencing. It is well known to video teleconference with any individual world wide. One skilled in the art would include step of using video conferencing device because save cost of traveling to the offices.

#### **Allowable subject matter**

Claims 1, 2, 4-12, 37 and 40 are allowable if applicant overcome the U.S.C. 101 rejections.

Claims 13, 14, 16-26, 28-36, 41, 42 are allowable.

With regards to claim 1, the examiner cannot find any applicable prior art and suggestions disclosing setting the pixel value of the integer position on the virtual image plane to a pixel value from one or more integer positions of the first image that corresponds with the projected point on the stereo disparity surface, if one or more integer positions of the second image that corresponds with the projected point on the stereo disparity surface are occluded in combination with all the limitations of claim 1.

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With regards to claim 40, the examiner cannot find any applicable prior art and / or suggestions disclosing projecting the center of projection through the projected point on the stereo disparity surface to a floating point position on the virtual image plane and projecting an integer position on the virtual image plane to identify the projected point on the stereo disparity surface, the integer position being adjacent to the floating point position on the virtual image plane in combination with all the limitations in claim 40.

With regards to claims 13 and 25, see the rationale for claim 1.

With regards to claim 41 and 42 see the rationale for claim 40.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX LIEW whose telephone number is (571)272-8623 or cell (917)763-1192. The examiner can be reached anytime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C Bella/  
Supervisory Patent Examiner, Art  
Unit 2624

Alex Liew  
AU2624  
12/21/08